

ABSTRACT OF THE INVENTION

An integrated enclosure/touch screen assembly with a soft thermoplastic outer surface coupled directly to a digitizer mechanism. A touch screen assembly consisting of a display mechanism and a resistive digitizer mechanism are enclosed within a single piece cover. The digitizer mechanism consists of a top film and a digitizing element, and the single piece cover is affixed directly to the top film of the digitizer mechanism. The single piece cover has a flat outer surface that is free of any steps or indentations which provides an enclosure that is both dust free and waterproof. The soft thermoplastic material used for the single piece cover will allow activation of the digitizer mechanism by means of mechanical pressure applied to the outer surface of the single piece cover. In one embodiment, the single piece cover is constructed by coupling a soft thermoplastic outer film directly to the top film of the digitizer mechanism by an in mold decoration process. This process forms the flat outer surface for the single piece cover and also may be used to provide various shapes for the outer edges of the cover. In a second embodiment, a touch screen assembly consisting of a display mechanism and a digitizer mechanism are enclosed within a mechanical support mechanism. A soft thermoplastic film is then coupled directly to the top film of the digitizer mechanism and the support mechanism to form a flat outer surface for the entire enclosure that is free of any steps or indentations.